

Applicant: Lee Chien-Hsin
Serial No.: 10/642,434
Filed: August 14, 2003
Page: 11 of 22

Attorney's Docket No.: 10559-845001 / P16871
Intel Corporation

REMARKS

Claims 1-28 are pending, with claims 1, 8, 15 and 22 being independent. Claims 1-28 have been amended. No new matter has been added.

Claims Objections

Claims 3, 6, 8-20 and 24 stand objected to under 37 C.F.R. § 1.75 for various informalities. The appropriate claims have been amended to obviate the objections.

Rejections Under 35 U.S.C. § 112

Claims 4, 9-14, 18 and 25 stand rejected under 35 U.S.C. § 112, 2nd ¶ as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The appropriate claims have been amended to obviate the rejections.

Rejections Under 35 U.S.C. § 101

Claims 8-14 stand rejected under 35 U.S.C. § 101 because the claims are allegedly directed to non-statutory subject matter. While Applicant disagrees, claims 8-14 have been amended to expedite the prosecution of the present application.

Amended claim 8 recites a computer program product embodied on a computer readable medium, which defines structural interrelationships between the computer program product and the tangible computer readable medium, and thus directed to statutory subject matter. (See MPEP 2106.01(I).)

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.
MPEP 2106.01 (I).

In addition, amended claim 8 recites practical applications of the computer program product that causes a data processing apparatus to perform operations including receiving, processing and sending data packets.

The Office contends that "without computer executable instructions the program cannot be carried out to perform the functions." (See, Office Action Dated March 19, 2007 at pg. 4, ll. 1-2.) However, it is noted that non-executable instructions are capable of causing a data processing apparatus perform various functions. Thus, the recited functions can be performed using executable and non-executable instructions.

For at least these reasons, independent claim 8 and its dependent claims 9-14 are directed to statutory subject matter and comply with the requirements of § 101. (See, MPEP 2106(I).)

Rejections Under 35 U.S.C. § 102

Claims 1-5, 8-12 and 22-26 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0095551 to Gotoh et. al. ("Gotoh").

Claim 1 and its dependent claims

Gotoh fails to teach each and every feature of claim 1. In particular, Gotoh fails to teach at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified data types of the first and second data packets to an arbitrator of one or more resources shared by at least the first and second data paths before the arbitrator receives the sent data packets."

The Examiner contends that the packet classification section in Gotoh is the claimed arbitrator, and that pre-registering the source IP addresses in the packet classification section is the claimed, communicating in advance the types of data packets received to an arbitrator. However, the cited portions of Gotoh fails to support the allegation. Gotoh is not communicating in advance the data types of the data packets, but

rather checking the Ip addresses of the received data packets against a list of pre-registered IP addresses. Thus, the data types of the data packets in Gotoh are not known in advance and before receiving the data packets.

In contrast, claim 1 recites that the data types are communicated with the arbitrator before the data packets are received by the arbitrator. In addition, the pre-registered IP addresses taught in Gotoh are IP addresses of the "terminals 21 sending real time data." (See, *id.* at ¶, ll. 8-10.) Thus, the "source" IP addresses of the data packets are merely the IP addresses of the terminals that sent the data packets. Since the IP addresses of the terminals describe the terminals and not the data packets, the IP addresses cannot reasonably be construed as the claimed, "identified data types."

Further, claim 1 recites that a data path different from the first and second data paths is used to communicate the data types. In contrast, no such structure is taught in Gotoh.

For at least these reasons, claim 1 is allowable over Gotoh. Claims 2-5 depend from claim 1, and are allowable over Gotoh for at least the same reasons.

Claim 8 and its dependent claims

Claim 8 is allowable over Gotoh for at least reasons similar to claim 1. Claims 9-12 depend from claim 8, and are allowable over Gotoh for at least the same reasons.

Claim 22 and its dependent claims

Claim 22 is allowable over Gotoh for at least reasons similar to claim 1. Claims 23-26 depend from claim 22, and are allowable over Gotoh for at least the same reasons.

Rejections Under 35 U.S.C. § 103

Claims 6, 13, and 27

Claims 6, 13 and 27 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gotoh in view of U.S. Patent No. 6,351,466 to Prabhakar ("Prabhakar").

The proposed combination of Gotoh and Prabhakar fails to teach or suggest each and every feature of claim 6. Claim 6 depends from claim 1, and is allowable over Gotoh for at least the same reasons. The addition of Prabhakar fails to alleviate the deficiencies of Gotoh.

Similar to Gotoh, Prabhakar fails to teach or suggest at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified data types of the first and second data packets

to an arbitrator of one or more resources shared by at least the first and second data paths before the arbitrator receives the sent data packets." In contrast, Prabhakar teaches "a combined-input-and-output-queued switch 34 that performs exactly the same as an output-queued switch 16, suing memory devices 24 operating more slowly." (Prabhakar at col. 6, ll. 6-8). Prabhakar does not teach or suggest using a data path different than the first and second data paths to communicate the identified data types as recited in claim 6. Therefore, even if Gotoh and Prabhakar were able to be combined (which is not conceded), the hypothetical combination would still fail to teach or suggest each and every feature of claim 6.

For at least these reasons, claim 6 is allowable over the proposed combination of Gotoh and Prabhakar. Claims 13 and 27 are allowable over the proposed combination of Gotoh and Prabhakar for at least reasons similar to claim 6.

Claims 7, 14 and 28

Claims 7, 14 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gotoh in view of U.S. Patent No. 7,007,071 to Brown ("Brown").

The proposed combination of Gotoh and Brown fails to teach or suggest each and every feature of claim 7. Claim 7 depends from claim 1, and is allowable over Gotoh for at least the same

reasons. The addition of Brown fails to alleviate the deficiencies of Gotoh.

Similar to Gotoh, Brown fails to teach or suggest at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified data types of the first and second data packets to an arbitrator of one or more resources shared by at least the first and second data paths before the arbitrator receives the sent data packets." In contrast, Brown teaches "a shared memory switch" that includes "a reserved pool of buffers in the shared memory." (Brown at col. 1, ll. 45-48 and col. 2, ll. 24-33.) Brown does not teach or suggest using a data path different than the first and second data paths to communicate the identified data types as recited in claim 7. Therefore, even if Gotoh and Brown were able to be combined (which is not conceded), the hypothetical combination would still fail to teach or suggest each and every feature of claim 7.

For at least these reasons, claim 7 is allowable over the proposed combination of Gotoh and Brown. Claims 14 and 28 are allowable over the proposed combination of Gotoh and Brown for at least reasons similar to claim 7.

Claims 15-19

Claims 15-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gotoh in view of U.S. Patent Application Publication No. 2004/0252686 to Hooper et. al. ("Hooper").

The proposed combination of Gotoh and Hooper fails to teach or suggest each and every feature of claim 15. Claim 15 is allowable over Gotoh for at least reasons similar to claims 1 and 8. The addition of Hooper fails to alleviate the deficiencies of Gotoh.

Similar to Gotoh, Hooper fails to teach or suggest at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified data types of the first and second data packets to an arbitrator of one or more resources shared by at least the first and second data paths before the arbitrator receives the sent data packets." In contrast, Hooper teaches "microengines 22a-22f, each having capabilities for processing four hardware program threads." (Hooper at ¶ [0012].) When bottleneck results, "the dispatcher 302" in Hooper uses "the microengine scratch memory 322 to store packet information." (Id. at ¶¶ [0033]-[0034].) Thus, Hooper uses extra memory slots to store the data packets in trying to alleviate the bottleneck.

However, Hooper does not teach or suggest using a data path different than the first and second data paths to communicate the identified data types as recited in claim 15. Therefore, even if Gotoh and Hooper were able to be combined (which is not conceded), the hypothetical combination would still fail to teach or suggest each and every feature of claim 15.

For at least these reasons, claim 15 is allowable over the proposed combination of Gotoh and Hooper. Claims 16-19 depend from claim 15, and are allowable over the proposed combination of Gotoh and Hooper for at least the same reasons.

Claim 20

Claim 20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gotoh in view of Hooper and further in view of Prabhaker.

The proposed combination of Gotoh, Hooper and Prabhaker fails to teach or suggest each and every feature of claim 20. Claim 20 depends from claim 15, and is allowable over the combination of Gotoh and Hooper for at least the same reasons. The addition of Prabhaker fails to alleviate the deficiencies of Gotoh and Hooper. As set forth with respect to claims 6, 13 and 27, Prabhaker fails to teach or suggest at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified

data types of the first and second data packets to an arbitrator of one or more resources shared by at least the first and second data paths before the arbitrator receives the sent data packets." Therefore, even if Gotoh, Hooper and Prabhaker were able to be combined (which is not conceded), the hypothetical combination would still fail to teach or suggest each and every feature of claim 20.

For at least these reasons, claim 20 is allowable over the proposed combination of Gotoh and Hooper and Prabhaker.

Claim 21

Claim 21 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gotoh in view of Hooper and further in view of Brown.

The proposed combination of Gotoh, Hooper and Brown fails to teach or suggest each and every feature of claim 21. Claim 21 depends from claim 15, and is allowable over the combination of Gotoh and Hooper for at least the same reasons. The addition of Brown fails to alleviate the deficiencies of Gotoh and Hooper. As set forth with respect to claims 7, 14 and 28, Brown fails to teach or suggest at least the claimed, "using another data path different from the first and second data paths to communicate in advance at least the identified data types of the first and second data packets to an arbitrator of one or more

resources shared by at least the first and second data paths before the arbitrator receives the sent data packets."

Therefore, even if Gotoh, Hooper and Brown were able to be combined (which is not conceded), the hypothetical combination would still fail to teach or suggest each and every feature of claim 21.

For at least these reasons, claim 21 is allowable over the proposed combination of Gotoh and Hooper and Brown.

CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific issue or comment does not signify agreement with or concession of that issue or comment. Because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. A formal notice of allowance is respectfully requested.


Applicant: Lee Chien-Hsin
Serial No.: 10/642,434
Filed: August 14, 2003
Page: 22 of 22

Attorney's Docket No.: 10559-845001 / P16871
Intel Corporation

No fees are believed due. Please apply any other charges
or credits to deposit account 06-1050.

Respectfully submitted,

Date: June 19, 2007



Scott C. Harris
Reg. No. 32,030
Attorney for Intel Corporation

Fish & Richardson P.C.
Customer Account: **20985**
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

SCH/HCL/jhg
10745945.doc